FACT SHEET

as required by LAC 33:IX.3109 for **major** LPDES facilities, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0045730; AI 19808; PER20080001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. **THE APPLICANT IS:** City of Denham Springs
Denham Springs Wastewater Treatment Plant
P.O. Box 1629
Denham Springs, LA 70727

II. **PREPARED BY:** Angela Marse

DATE PREPARED: June 18, 2009

III. **PERMIT ACTION:** reissue LPDES permit LA0045730, AI19808

LPDES application received: March 19, 2008

LPDES permit issued: October 1, 2003
LPDES permit expired: September 30, 2008

IV. **FACILITY INFORMATION:**

A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the City of Denham Springs.

B. The permit application does not indicate the receipt of industrial wastewater.

C. The facility is located at 9300 Forrest Delatte Road in Denham Springs, Livingston Parish.

D. The current treatment facility consists of two settling ponds and two rock-reed filters. Disinfection is by ultraviolet light. The City is currently building a new treatment facility. The new facility when completed in August, 2009 will consist of an equalization basin and a 2 train oxidation ditch/clarifier system and sand filters. Disinfection will be done by chlorination. Dechlorination and post aeration will follow disinfection. See Part IX. for further discussion.

E. Outfall 001

Discharge Location: Latitude 30°27'13" North
Longitude 90°56'1" West

Description: treated sanitary wastewater

Design capacity: Old facility 3 MGD
New facility 6 MGD

Type of Flow Measurement which the facility is currently using:

Combination Totalizing Meter / Continuous Recorder

V. RECEIVING WATERS:

The discharge is into a highway ditch, thence into Gray's Creek, thence into the Amite River in segment 040304 of the Lake Ponchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The **critical low flow** (7Q10) of Gray's Creek is 0.1 cfs.

The **hardness value** is 57.5 mg/l and the **fifteenth percentile value for TSS** is 11.3 mg/l.

The designated uses and degree of support for Segment 040304 of the Lake Ponchartrain Basin are as indicated in the table below[1/]:

Overall Degree of Support for Segment	Degree of Support of Each Use						
Not Supported	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

[1/] The designated uses and degree of support for Segment 040304 of the Lake Ponchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040304 of the Lake Pontchartrain Basin is on the 2006 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are pathogen indicators, organic enrichment/low DO, nitrate/nitrite, TDS, sulfates, and phosphorus. To date no TMDLs have been completed for this waterbody.

Until completion of the TMDLs for the Lake Pontchartrain Basin, suspected causes of impairment which are not directly attributed to municipal point sources have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment that could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standards were also eliminated. This includes TDS and sulfates. This determination is made through best professional judgement based upon EPA's determination of patterns in the incidence of pollutants present in sanitary wastewater as per EPA's Proposed Rule of December 6, 1995.

Suspected causes of concern remaining after this elimination process are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

Organic enrichment/low DO
$CBOD_5$ is used as a method to measure the amount of dissolved oxygen in the waste stream utilized by organisms during the decomposition of organic material over a five day period when ammonia-nitrogen is a requirement of the permit. Monitoring for dissolved oxygen is the best indicator by which to protect against the potential discharge of DO at levels below that of state water quality standards. To protect against the discharge of oxygen depleting pollutants at levels that would cause in stream oxygen problems, $CBOD_5$ and DO limits have been place in the permit.

Pathogen indicators
Monitoring for fecal coliform is the best indicator for the potential presence of pathogenic organisms in wastewater. To protect against potential receiving water impairments due to pathogens, fecal coliform limits have been established in the permit. These limits are equivalent to State standards for primary contact recreation.

Nitrites, nitrates, and phosphorus
Nitrites, nitrates, and phosphorus are all considered nutrients. In the absence fo specific numeric water quality standards for all nutrients, and to address impairments associate with nutrients, LDEQ may require monitoring of nutrients (i.e., phosphorus or nitrogen) to address impairments and to gather data for TMDL development. Low DO is the primary result or outcome of excessive levels of nutrients in waterbodies and there is a direct correlation between DO and nutrients. LDEQ's declaratory ruling (April 29, 1996) states "That DO directly correlates with overall nutrient impact is a well-established biological and ecological principle. Thus, when the LDEQ maintains and protects DO, the LDEQ is in effect also limiting and controlling nutrient concentrations and impact." Thus, through the previously mentioned $CBOD_5$ and DO limit, LDEQ is also controlling nutrients (i.e., nitrogen and phosphorus).
In addition, indicators such as $CBOD_5$ and ammonia nitrogen are established in the permit to measure oxygen demand and nutrients.

Monitoring for ammonia nitrogen is an indicator by which to assess the potential presence of nutrients remaining in a waste stream after nitrification process has taken place. Therefore, to protect against the potential introduction of nutrients into the receiving waterbody at levels which exceed state water quality standards, ammonia nitrogen limits have been placed in the permit.

To further protect the waterbody from nutrient impairment, to ensure that monitoring information is available to assess future water quality requirements for this facility and to assist in identifying pollutant sources in this waterbody, Grays Creek, monitoring and reporting requirements for phosphorus and nitrates are also established in the permit. A reopener clause is included in Part II of the permit, which allows the permit to be modified, or revoked and reissued if necessary to include more stringent limits based on final load allocations in the completed and approved TMDL.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040304 of the Lake Ponchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the *Gulf Sturgeon*, which is listed as a threatened/endangered species. This draft permit has been sent to the FWS for review. As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon the *Gulf Sturgeon* since effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation
Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mrs. Angela Marse
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Interim Effluent Limits:

OUTFALL 001

The City of Denham Springs is in the process of constructing a new facility. Currently they have two settling ponds followed by two rock reed filters. (They had four, but two were taken off line to construct the new plant.) When completed, the new facility will consist of an equalization basin and bar screen/grit chamber prior to a two-train oxidation ditch/clarifier system and sand filter. Filtered effluent will then undergo chlorination/dechlorination and post aeration.

As stated in Section V. Receiving Waters, the discharge is into Grays Creek in subsegment 040304 of the Lake Pontchartrain Basin. No TMDLs have been finalized for this subsegment to date. A memo from Marian Aguillard to Linda Levy (2003) discussed a water quality study conducted for Gray's Creek for new dischargers.However, at this time the City of Denham Springs was an existing facility. So these limits were not included in the permit that was reissued in 2003. However, their increase in design capacity could contribute additional pollutants to Gray's Creek if effluent limits (mass limits) are allowed to increase. To prevent any further impact on the receiving waterbody, the mass effluent limitations, or loadings, will not increase even though the discharge flow will increase. The effluent limits expressed in concentration will remain the same. A reopener clause is included in the permit to incorporate the results of any total maximum daily load allocation which may be approved for the receiving water body.

Results of a priority pollutant scan were submitted with the application. A water quality screen indicated a water quality based limited was needed for copper, hexachlorobenzene, and hexachlorobutadiene to meet water quality standards. (See Appendix B-2.)

During the draft comment period, the City may submit the results of three (3) or more additional effluent analyses taken no less than 48 hours apart to either refute or substantiate the presence of these pollutants. Prior to finalization of this permit, the additional analyses will be evaluated by this Office to determine if the pollutant is potentially in the effluent and if it exceeds the State's water quality standards. If a water quality based limit is needed in the final permit, an interim period is proposed to allow the permittee time to comply with the limit.

Interim limits shall become effective on the effective date of the permit and expire three years from the effective date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
$CBOD_5$	250	10 mg/l	15 mg/l	Limits are set in accordance with the Lake Pontchartrain Basin Segment 0403 Areawide Policy for facilities of this treatment type and size.
TSS	375	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	100	4 mg/l	8 mg/l	BPJ based on the previous permit effluent limit due to toxicity concerns of the USEPA Region 6. Ammonia limits have been established at the edge of the mixing zone.
Nitrates	N/A	Report mg/l	Report mg/l	BPJ based on receiving stream impairments. The receiving stream, Gray's Creek is specifically impaired for nitrates. This is consistent to monitoring requirements for similar facilities discharging to receiving streams impaired for nitrates.
Total Phosphorus	N/A	Report mg/l	Report mg/l	BPJ based on receiving stream impairments. The receiving stream, Gray's Creek is specifically impaired for phosphorus. This is consistent to monitoring requirements for similar facilities discharging to receiving streams impaired for phosphorus.
Dissolved Oxygen	---	5 mg/l	N/A	BPJ based on the previous permit and water quality impairments of the receiving stream.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
Copper	Report lb/day	Report lb/day	Interim requirement to allow for compliance with final water quality based limit.
Hexachlorobenzene	Report lb/day	Report lb/day	Interim requirement to allow for compliance with final water quality based limit.
Hexachlorobutadiene	Report lb/day	Report lb/day	Interim requirement to allow for compliance with final water quality based limit.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C, the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

4) **Total Residual Chlorine**

If chlorination is used to achieve the limitations on Fecal Coliform Bacteria, the effluent shall contain NO MEASURABLE Total Residual Chlorine (TRC) after disinfection and prior to disposal. Given the current constraints pertaining to chlorine analytical methods, NO MEASURABLE will be defined as less than 0.1 mg/l of chlorine. The TRC shall be monitored daily by grab sample.

Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the

permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, April 16, 2008, VERSION 6). Whole effluent toxicity testing is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics.

Based on information contained in the permit application and a reivew of biomonitoring test results required by the previous permit, LDEQ has determined there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream in violation of Section 101(a)(3) of the Clean Water Act. Testing since the issuance of the previous permit has demonstrated 2 lethal and 8 sub-lethal test failures for *Pimephales promelas* and 1 lethal and 2 sub-lethal test failures for *Ceriodaphnia dubia*. The facility has intiated a Toxicity Reduction Evaluation scheduled for completion in June, 2009. A WET limit is established in the proposed permit to meet narrative criteria which, in part, states that 'No substances shall be present in the waters of the State or the sediments underlying said waters in quantities alone or in combination will be toxic to human, plant, or animal life ...' (LAC 33:IX.1113.B.5).

The toxicity test procedures stipulated as a condition of this permit are listed below.

The permittee shall submit the results of any biomonitoring testings performed in accordance with the LPDES Permit No LA0045730 **Section E** for the organisms indicated below.

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day survival & reproduction test using Ceriodaphnia dubia (Method 1002.0)	1/quarter
Chronic static renewal 7-day survival & growth test using fathead minnow (Pimephales promelas) (Method 1000.0)	1/quarter

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 31%, 42%, 56 %, 74%, and 99%. The whole effluent toxicity limit (critical low-flow dilution) is defined as 99% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in **Section E** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in **Section E** of the permit.

Final Effluent Limits:

OUTFALL 001
Final limits shall become effective three years from the effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
$CBOD_5$	250	10 mg/l	15 mg/l	Limits are set in accordance with the Lake Pontchartrain Basin Segment 0403 Areawide Policy for facilities of this treatment type and size.
TSS	375	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen	100	4 mg/l	8 mg/l	BPJ based on the previous permit effluent limit due to toxicity concerns of the USEPA Region 6. Ammonia limits have been established at the edge of the mixing zone.
Nitrates	N/A	Report mg/l	Report mg/l	BPJ based on receiving stream impairments. The receiving stream, Gray's Creek is specifically impaired for nitrates. This is consistent to monitoring requirements for similar facilities discharging to receiving streams impaired for nitrates.
Total Phosphorus	N/A	Report mg/l	Report mg/l	BPJ based on receiving stream impairments. The receiving stream, Gray's Creek is specifically impaired for phosphorus. This is consistent to monitoring requirements for similar facilities discharging to receiving streams impaired for phosphorus.
Dissolved Oxygen	---	5 mg/l	N/A	BPJ based on the previous permit and water quality impairments of the receiving stream.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Effluent Characteristic	Monthly Avg. (lb/day)	Daily Max. (lb/day)	Basis
Copper	1.07	2.53	Water quality based effluent limit based on analytical data submitted with the application and receiving waterbody characteristics.
Hexachlorobenzene	$1.39e^{-5}$	$3.35e^{-5}$	Water quality based effluent limit based on analytical data submitted with the application and receiving waterbody characteristics.
Hexachlorobutadiene	0.006	0.014	Water quality based effluent limit based on analytical data submitted with the application and receiving waterbody characteristics.

Other Effluent Limitations:

1) **Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5., the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) **pH**

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3) **Solids and Foam**

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

4) **Total Residual Chlorine**

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Toxicity Characteristics

In accordance with EPA's Region 6 Post-Third Round Toxics Strategy, permits issued to treatment works treating domestic wastewater with a flow (design or expected) greater than or equal to 1 MGD shall require biomonitoring at some frequency for the life of the permit or where available data show reasonable potential to cause lethality, the permit shall require a whole effluent toxicity (WET) limit (*Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards*, April 16, 2008, VERSION 6). Whole effluent toxicity testing is the most direct measure of potential toxicity which incorporates the effects of synergism of the effluent components and receiving stream water quality characteristics.

Based on information contained in the permit application and a reivew of biomonitoring test results required by the previous permit, LDEQ has determined there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream in violation of Section 101(a)(3) of the Clean Water Act. Testing since the issuance of the previous permit has demonstrated 2 lethal and 8 sub-lethal test failures for *Pimephales promelas* and 1 lethal and 2 sub-lethal test failures for *Ceriodaphnia dubia*. The facility has intiated a Toxicity Reduction Evaluation scheduled for completion in June, 2009. A WET limit is established in the proposed permit to meet narrative criteria which, in part, states that 'No substances shall be present in the waters of the State or the sediments underlying said waters in quantities alone or in combination will be toxic to human, plant, or animal life ...' (LAC 33:IX.1113.B.5).

The toxicity test procedures stipulated as a condition of this permit are listed below.

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Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional concentrations shall be 31%, 42%, 56 %, 74%, and 99%. The whole effluent toxicity limit (critical low-flow dilution) is defined as 99% effluent. The critical dilution is calculated in Appendix B-1 of this fact sheet. Results of all dilutions shall be documented in a full report according to the test method publication mentioned in **Section E** under Whole Effluent Toxicity. This full report shall be submitted to the Office of Environmental Compliance as contained in the Reporting Paragraph located in **Section E** of the permit.

X. **PREVIOUS PERMITS:**

LPDES Permit No. LA0045730: Issued: October 1, 2003
Expired: September 30, 2008

Interim Limits

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
$CBOD_5$	10 mg/l	15 mg/l	2/week	6 hr.composite
TSS	15 mg/l	23 mg/l	2/week	6 hr.composite
Ammonia-Nitrogen	5 mg/l	10 mg/l	2/week	6 hr.composite
Dissolved oxygen	---	5 mg/l	2/week	Grab
Fecal Coliform Colonies	200	400	2/week	Grab
pH	---	---	2/week	Grab

Final Limits

Effluent Characteristic	Discharge Limitations		Monitoring Requirements	
	Daily Avg.	Daily Max.	Measurement Frequency	Sample Type
Flow	Report	Report	Continuous	Recorder
$CBOD_5$	10 mg/l	15 mg/l	2/week	6 hr.composite
TSS	15 mg/l	23 mg/l	2/week	6 hr.composite
Ammonia-Nitrogen	4 mg/l	8 mg/l	2/week	6 hr.composite
Dissolved oxygen	---	5 mg/l	2/week	Grab
Fecal Coliform Colonies	200	400	2/week	Grab
pH	---	---	2/week	Grab

The permit contains pretreatment program.
The permit contains biomonitoring language.
The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates the following most recent inspections were performed for this facility.

Date – March 27, 2008
Inspector - LDEQ
Findings and/or Violations -

1. Two of ten aerators were out of service. One aerator had a bad motor and the other had a broken belt. The permit requires the permittee to at all times properly operate and maintain equipment.
2. All records with the exception of January, 2008 had been removed by Enviro-One to prepare for a compliance meeting with LDEQ.

Date – February 22, 2007
Inspector - LDEQ
Findings and/or Violations -

1. Two aerators were down for repairs.
2. Flow meter was calibrated in November, 2006.
3. Facility grounds were well maintained.
4. Dissolved oxygen and pH are analyzed on-site.
5. November, 2005- December, 2006 DMRs were reviewed. Facility experienced numerous exceedences/violations during this time.

B) Compliance and/or Administrative Orders

A review of the files indicates the following most recent enforcement actions administered against this facility:

LDEQ Issuance:

Docket # - WE-CN-06-0302A
Date Issued – August 28, 2008
Order:

1. Numerous violations were cited from March, 2003 through December, 2006.
2. All or the remainder of the original consolidated compliance order and notice of potential penalty, enforcement tracking no WE-CN-06-0302 were incorporated by reference. (See # 3 under WE-CN-07-0547 below.)

Docket # - WE-CN-07-0547
Date Issued – November 26, 2007
Finding of Fact:

1. Respondent owns and operates an existing publicly owned treatment works at 9300 Forest Delatte Road in Denham Springs, La and operates under LPDES permit no. LA0045730 issued October 1, 2003.

2. Respondent was issued Compliance Order WE-CN-01-0831 on July 6, 2001 and Compliance Order WE-CN-02-0013 on February 28, 2002. A settlement agreement was finalized between the Department and the Respondent to address consolidated compliance orders WE-CN-01-0381 and WE-CN-02-0013. They are both final actions and not subject to further review.
3. Consolidated compliance order WE-CN-06-0302 was issued on February 28, 2007 for failure to collect effluent composite samples, failure to properly operated and maintain the collection and /or treatment system, unauthorized discharges, failure to submit complete DMRS, and for violations of LPDES permit LA0045730 effluent limits including biomonitoring tests failures. Respondent was required to take any step necessary to comply with permit LA0045730, submit a Toxicity Reduction Evaluation, submit the sum of $30,400 for permit violations, comply with the construction schedule for upgrading the wastewater treatment plant, and to submit a report detailing cited violations and actions taken to achieve compliance.
4. A DMR review for the period of January, 2007 through September, 2007 revealed numerous violations.
5. Respondent failed to submit accurate and/or complete DMRs.

Order:

1. To take all steps necessary to comply with LA0045730.
2. To submit within thirty (30) days after receipt of the compliance order properly completed DMRs.
3. To submit within thirty (30) days after receipt of the compliance order, a written report that includes a detailed description of the circumstances surrounding the violations.

C) DMR Review

A review of the discharge monitoring reports for the period beginning **September, 2006** through **July, 2008** has revealed the following violations:

Parameter	Period of Excursion	Permit Limit	Reported Quantity
$CBOD_5$	Sept, 2006	10 mg/l	10.6mg/l
$CBOD_5$	Sept, 2006	15 mg/l	20 mg/l
$CBOD_5$	Oct, 2006	10 mg/l	14.3 mg/l
$CBOD_5$	Oct, 2006	15 mg/l	25 mg/l
$CBOD_5$	June, 2007	10 mg/l	15.4 mg/l
$CBOD_5$	June, 2007	15 mg/l	16.3 mg/l
$CBOD_5$	April, 2008	15 mg/l	20.6 mg/l
$CBOD_5$	May, 2008	10 mg/l	17.1 mg/l
$CBOD_5$	May, 2008	15 mg/l	22.3 mg/l
$CBOD_5$	June, 2008	10 mg/l	32 mg/l
$CBOD_5$	June, 2008	15 mg/l	38 mg/l

$CBOD_5$	July, 2008	10 mg/l	37 mg/l
$CBOD_5$	July, 2008	15 mg/l	67.5 mg/l
$CBOD_5$	August, 2008	10 mg/l	25.3 mg/l
$CBOD_5$	August, 2008	15 mg/l	33.9 mg/l
$CBOD_5$	May, 2008	250 lb/day	259 lb/day
$CBOD_5$	June, 2008	250 lb/day	470 lb/day
$CBOD_5$	July, 2008	250 lb/day	621 lb/day
$CBOD_5$	August, 2008	250 lb/day	583 lb/day
TSS	October, 2006	15 mg/l	19.5 mg/l
TSS	October, 2006	23 mg/l	29 mg/l
TSS	May, 2007	15 mg/l	46.2 mg/l
TSS	May, 2007	23 mg/l	85.6 mg/l
TSS	June, 2007	15 mg/l	42.5 mg/l
TSS	June, 2007	23 mg/l	52.4 mg/l
TSS	July, 2007	15 mg/l	24.2 mg/l
TSS	July, 2007	23 mg/l	26.6 mg/l
TSS	August, 2007	15 mg/l	21.3 mg/l
TSS	August, 2007	23 mg/l	27.2 mg/l
TSS	October, 2007	15 mg/l	25.1 mg/l
TSS	October, 2007	23 mg/l	31.3 mg/l
TSS	December, 2007	15 mg/l	20 mg/l
TSS	December, 2007	23 mg/l	26 mg/l
TSS	January, 2008	15 mg/l	23 mg/l
TSS	January, 2008	23 mg/l	28 mg/l
TSS	February, 2008	15 mg/l	17.2 mg/l
TSS	February, 2008	23 mg/l	23.4 mg/l
TSS	March, 2008	15 mg/l	27.9 mg/l
TSS	March, 2008	23 mg/l	34.3 mg/l
TSS	April, 2008	15 mg/l	29.2 mg/l
TSS	April, 2008	23 mg/l	39 mg/l
TSS	May, 2008	15 mg/l	29.2 mg/l
TSS	May, 2008	23 mg/l	43.7 mg/l
TSS	June, 2008	15 mg/l	63.1 mg/l
TSS	June, 2008	23 mg/l	86.8 mg/l
TSS	July, 2008	15 mg/l	62.5 mg/l
TSS	July, 2008	23 mg/l	96.5 mg/l
TSS	August, 2008	15 mg/l	66.9 mg/l
TSS	August, 2008	23 mg/l	79.5 mg/l
TSS	May, 2008	375 lb/day	441 lb/day
TSS	June, 2008	375 lb/day	931 lb/day
TSS	July, 2008	375 lb/day	1048 lb/day
TSS	August, 2008	375 lb/day	1541 lb/day
Ammonia	September, 2006	5 mg/l	8.9 mg/l
Ammonia	September, 2006	10 mg/l	12.5 mg/l
Ammonia	October, 2006	4 mg/l	6.5 mg/l
Ammonia	October, 2006	8 mg/l	9.2 mg/l
Ammonia	December, 2006	4 mg/l	7.4 mg/l
Ammonia	December, 2006	8 mg/l	9.1 mg/l
Ammonia	January, 2007	4 mg/l	9.1 mg/l
Ammonia	January, 2007	8 mg/l	10.3 mg/l

Ammonia	February, 2007	4 mg/l	8.2 mg/l
Ammonia	February, 2007	8 mg/l	9
Ammonia	March, 2007	4 mg/l	9.5 mg/l
Ammonia	March, 2007	8 mg/l	10.1
Ammonia	July, 2007	4 mg/l	8.3 mg/l
Ammonia	July, 2007	8 mg/l	10.5 mg/l
Ammonia	August, 2007	4 mg/l	6.6 mg/l
Ammonia	September, 2007	4 mg/l	8.1 mg/l
Ammonia	September, 2007	8 mg/l	8.7 mg/l
Dissolved oxygen	October,2 007	5 mg/l min.	4.2 mg/l
Dissolved oxygen	November, 2007	5 mg/l min.	4.4 mg/l
Dissolved oxygen	February, 2007	5 mg/l min.	4.49 mg/l
Dissolved oxygen	March, 2007	5 mg/l min.	4.7 mg/l
Dissolved oxygen	April, 2007	5 mg/l min.	3.1 mg/l
Dissolved oxygen	May, 2007	5 mg/l min.	4 mg/l
Dissolved oxygen	June, 2007	5 mg/l min.	4.5 mg/l
Dissolved oxygen	July, 2007	5 mg/l min.	3.8 mg/l
Dissolved oxygen	August, 2007	5 mg/l min.	3.6 mg/l
Fecal Coliform	October, 2006	200 col/100 ml	357
Fecal Coliform	October, 2006	400 col/100 ml	1800
Fecal Coliform	November, 2006	200 col/100 ml	16916
Fecal Coliform	November, 2006	400 col/100 ml	32939
Fecal Coliform	December, 2006	200 col/100 ml	1455
Fecal Coliform	December, 2006	400 col/100 ml	14270
Fecal Coliform	January, 2007	400 col/100 ml	10815
Fecal Coliform	February, 2007	200 col/100 ml	246
Fecal Coliform	March, 2007	400 col/100 ml	1115
Fecal Coliform	May, 2007	400 col/100 ml	650
Fecal Coliform	June, 2007	200 col/100 ml	363
Fecal Coliform	June, 2007	400 col/100 ml	1104
Fecal Coliform	July, 2007	200 col/100 ml	219
Fecal Coliform	July, 2007	400 col/100 ml	600
Fecal Coliform	September, 2007	200 col/100 ml	922
Fecal Coliform	September, 2007	400 col/100 ml	2000
Fecal Coliform	February, 2007	400 col/100 ml	748
Fecal Coliform	April, 2008	200 col/100 ml	548
Fecal Coliform	April, 2008	400 col/100 ml	658
Fecal Coliform	June, 2008	200 col/100 ml	577
Fecal Coliform	June, 2008	400 col/100 ml	2000
Fecal Coliform	July, 2008	200 col/100 ml	621
Fecal Coliform	July, 2008	400 col/100 ml	2000

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved

TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(c) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b) Controls any pollutant not limited in the permit; or

c) Requires reassessment due to change in 303(d) status of waterbody; or

d) Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The mechanical plant will produce exceptional quality sludge (Class A) suitable for reuse. Sludge wasted to the digester will be dewatered by a belt press system and sent to a lime/pasteurization heat treatment that holds the sludges at pH>12 and >160° for a period of greater than 30 minutes in accordance with LAC 33:IX.6909.C.1.g. The City of Denham Springs has been notified they need to submit a permit application for sewage sludge and biosolids use or disposal.

At present, the **Monitoring Requirements, Sample Types, and Frequency of sampling** as shown in the permit are standard for facilities of flows between **5** and **10** MGD.

Effluent Characteristics	Monitoring Requirements	
	Measurement Frequency	Sample Type
Flow	Continuous	Recorder
$CBOD_5$	5/week	6 Hr. Comp.
Total Suspended Solids	5/week	6 Hr. Comp.
Ammonia-Nitrogen	5/week	6 Hr. Comp.
Total Phosphorus	1/6months	Grab
Dissolved Oxygen	5/week	Grab
Fecal Coliform Bacteria	5/week	Grab
Biomonitoring		
Ceriodaphnia dubia (Method 1002.0)	1/quarter	24 Hr. Comp.
Pimephales promelas (Method 1000.0)	1/quarter	24 Hr. Comp.
pH	5/week	Grab
Total Copper	1/quarter	24-hr. Comp.
Hexachlorobenzene	1/quarter	24-hr. Comp.
Hexachlorabutadiene	1/quarter	24-hr. Comp.

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, standard pretreatment language will be used due to the lack of either an approved or required pretreatment program.

Environmental Impact Questionnaire
This application is for the renewal of an existing permit and the renewal does not increase the amount of pollutants to the receiving waterbody. Therefore, an Environmental Impact Questionnaire is not required.

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8; "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 2006.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards", Louisiana Department of Environmental Quality, 2008.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program", Louisiana Department of Environmental Quality, 2008.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, City of Denham Springs,Denham Springs Treatment Plant, March 19, 2008.